Bonneville Power Administration
Fish and Wildlife Program FY98 Watershed Proposal Form

Section 1. General administrative information

Title # Protecting And Restoring The Lolo Creek Watershed

Bonneville project number, if an ongoing project 9607702

Business name of agency, institution or organization requesting funding
Nez Perce Tribal Fisheries/Watershed Management Program

Business acronym (if appropriate) NPT

Proposal contact person or principal investigator:

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Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name
Clearwater Nat'l Forest	Rt. 2 Box 191	Kamiah, ID 83536	Doug Gober
Earth Conservation Corps/Salmon Corps at Nez Perce	P.O. box 689	Lapwai, ID 83540	Heidi Stubbers
Idaho Department of Lands	Rt. 2 Box 190	Kamiah, ID 83536	Gene Phillips
Potlatch Corp Headquaters	HC64 Box 1009	Headquarters, ID 83546	Paul Gravelle
Private Permittee	HCR 66 Box 54	Kooskia, ID 83539	Darryl Newman
Private Permittee	P.O. Box 192	Kamiah, ID 83536	Ralf Oswald

NPPC Program Measure Number(s) which this project addresses.

SECTION 7.1 - ENSURING BIODIVERSITY; SECTION 7.6 - HABITAT GOALS, POLICIES, AND OBJECTIVES; SECTION 7.7 - COOPERATIVE HABITAT PROTECTION AND IMPROVEMENT WITH PRIVATE LANDOWNERS; SECTION

7.8 - IMIPLEMENT STATE, FEDERAL, AND TRIBAL HABITAT IMPROVEMENTS.

NMFS Biological Opinion Number(s) which this project addresses.

The Clearwater and Nez Perce National Forests have completed a biological assessment for activities affecting steelhead trout. The National Marine Fisheries Service is presently preparing the Biological Opinion, which will be completed in January, 1998.

Other planning document references.

BPA, 1997. Watershed Management Program: Final Environmental Impact Statement.

Clearwater National Forest and Nez Perce Tribe, 1997. Challenge Cost-Share Agreement between the Clearwater National Forest and the Nez Perce Tribe. Lapwai, ID.

Columbia Basin Fish and Wildlife Authority, 1997. Integrated Watershed Projects: The Process and Criteria for Selecting Watershed Projects for the Columbia Basin Fish and Wildlife Program.

Columbia River Fish and Wildlife Program, 1994. Columbia River Basin Fish and Wildlife Prog.

CRITFC, 1995. WY-KAN-USH-MI WA-KISH-WIT, Spirit of the Salmon. Vol. I and II Portland, OR.

Nez Perce Tribe and Idaho Dept. of Fish and Game, 1990. Clearwater River Subbasin Salmon and Steelhead Production Plan. Northwest Power Planning Council and CBFWA. Bosie, ID.

Verbal Agreement and Support for Work on the Lolo Creek Watershed in 1998, 1997. Potlatch Corp., Idaho Dept. of Lands, and Private Permittees (Ralf Ozwald and Darryl Newman), Salmon Corps.

Subbasin.

CLEARWATER SUBBASIN, Lolo Creek watershed.

Short description.

PROTECTING AND RESTORING THE LOLO CREEK WATERSHED WITHIN THE CLEARWATER SUBBASIN IS THE OVERALL GOAL OF THIS PROJECT. WE WILL ACHIEVE THIS WORKING WITHIN AN OVERALL WATERSHED APPROACH, COMPLETING FOUR OBJECTIVES IN MANY AREAS OF THE WATERSHED.

Section 2. Key words

Mark	Programmatic Categories	Mark	Activities	Mark	Project Types
X	Anadromous fish	X	Construction	X	Watershed
*	Resident fish		O & M		Biodiversity/genetics
*	Wildlife		Production		Population dynamics
	Oceans/estuaries		Research		Ecosystems
	Climate	*	Monitoring/eval.		Flow/survival
	Other	*	Resource mgmt		Fish disease
			Planning/admin.		Supplementation
		*	Enforcement	*	Wildlife habitat en-
			Acquisitions		hancement/restoration

Other keywords.

ROAD OBLITERATION, NON-SOURCE WATERING SYSTEMS, RIPARIAN RESTORATION

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship
83350	NEZ PERCTRIBAL HATCHERY	WATERSHED PROTECTION AND RESTORATION FOR ANADROMOUS FISH.
970600	NEZ PERCE TRIBE FOCUS WATERSHED PROGRAM	FOCUS PROGRAM IS CO-COORDINATED BETWEEN NPT AND IDAHO STATE.
9608600	IDAHO SOIL CONSERVATION COMMISSION FOCUS WATERSHED PROGRAM	FOCUS PROGRAM IS CO-COORDINATED BETWEEN NPT AND IDAHO STATE.

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Alleviate Sediment Input from Road Sources in the Lolo Creek Watershed.	a	Coordinate with the Clearwater National Forest on roads to be obliterated.
		b	Obliterate Roads.
		c	Revegetate obliterated roads with native plant species.

		d	Monitor and Evaluate obliterated roads for blow-outs, vegetation growth, and soil stabilization.
		e	Complete report on effects of road obliteration on the affected watershed over time.
2	Create Cattle Non-Source Watering Systems in the Mussellshell Uplands of the Lolo Creek Watershed.	a	Coordinate with U.S. Forest Service to build non-source watering sights.
		b	Construct two non-source watering systems.
		c	Operation and Maintanence of non-source watering systems.
3	Stabilize Stream Banks, Produce Fish and Wildlife Cover, and Improve Water Temperature Within the Mussellshell and Brown's Creek Areas of the Lolo Creek Watershed.	a	Coordinate with various involved agencies on riparian protection fence to be built.
		b	Build Riparian Protection Fence.
		c	Operation and maintenance of Riparian Protection Fence.
		d	Coordinate with various involved agencies on bank stabilization of high risk stream meander blow-outs.
		e	Stabilize steam meanders.
		f	Coordinate with various involved agencies on riparian bank and stream revegetation.
		g	Plant vegetation.
		h	Monitor and Evaluate (M&E) stream bank stabilization and riparian regrowth.
		i	Replant any vegetation, if needed.
4	Operation and Maintenance of Current Mussellshell Meadows Protection Fence Line in the Lolo Creek Watershed.	a	Observe and evaluate current fence line.
		b	Repair damaged fence line.

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1	7/1998	9/1998	40.00%
2	4/1998	6/1998	10.00%
3	4/1998	6/1998	40.00%
4	5/1998	5/1998	10.00%
			TOTAL 100.00%

Schedule constraints.

EXISTING SCHEDULES FOR THE 1998 BUDGET YEAR MAY CHANGE DUE TO WEATHER CONDITIONS. ALL ON-THE-GROUND PROJECTS OCCUR IN MOUNTAINOUS AREAS AT ELEVATIONS UP TO 5500 FEET ABOVE SEA LEVEL, WHERE UNPREDICTABLE WEATHER PATTERNS MAY OCCUR.

Completion date.

A FIVE YEAR PLAN IS TO BE COORDINATED AND DEVELOPED STARTING 1999 THROUGH 2003 FOR THE LOLO CREEK WATERSHED WITH THE CLEARWATER NAT'L FOREST. MONITORING, EVALUATION, AND OPERATION WILL CONTINUE BEYOND 2003.

Section 5. Budget

FY99 budget by line item

Item	FY98	FY99
Personnel	10 individuals, 1998 = 100,530	$110,583
Fringe benefits	1998 = 10,601	$11,661
Supplies, materials, non-expendable property	1998 = 9,900	$10,890
Operations & maintenance		
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		
PIT tags	# of tags:	
Travel	1998 = 30,000	$33,000
Indirect costs	1998 = 47,233	$51,956
Subcontracts	1998 = 148,000	$162,800
Other	Vehicle Costs, 1998 = 10,725	$11,797
TOTAL		$392,687

Outyear costs

Outyear costs	FY2000	FY01	FY02	FY03
Total budget	$431,957	$64,794	$671,273	$78,400
O&M as % of total	15.00%	99.99%	99.99%	99.99%

Section 6. Abstract

Protecting and restoring the Lolo Creek Watershed, to assist in increasing anadromous fish populations, is the overall goal of this project. We will achieve this working within an overall watershed approach, completing four objectives in many areas of the watershed, such as Mussellshell Uplands and Meadows, Browns Creek, and various portions of Lolo Creek and its tributaries. The first objective is road obliteration, which is a priority activity within the watershed to reduce sediment delivery to streams. Monitoring and evaluation will be completed and a report produced researching how road obliteration has decreased sediment loads into the Lolo Creek and its tributaries over time. The second objective is stream bank stabilization by possible in-stream structures (to be determined), riparian planting, and grazing exclusion (fencing). The third objective is construction of off-stream watering systems to decrease pressure on riparian areas. The fourth objective is a monitoring and evaluation component, which will maintain all existing structures and provide for their continued up keep. The expected outcome of our work will decrease sediment problems and stabilize streams banks within the watershed, which will in turn increase available fish and wildlife habitat, assist in enlarging their populations, and protect Nez Perce tribal treaties and culture.

Section 7. Project description

a. Technical and/or scientific background.

Protecting and restoring the Lolo Creek Watershed, so it can return to its original state producing a healthy environment for fish and wildlife, using an overall watershed approach (as outlined in the NPPC Fish and Wildlife Program and the Anadromous Fish Restoration Plan of the Tribes), and protecting Nez Perce Tribal treaty rights and culture are the main goals of this project. There are three problems that have been identified within the Lolo Creek Watershed.

The first problem is excess roads, which were constructed between 1958 and 1970 for timber harvest and are a source of sediment into streams and tributaries (Clearwater National Forest Landslide Study, 1997), (CRITFC, 1995). Delivery of sediment to streams has contributed to increased cobble embeddedness and degradation of fish spawning and rearing habitat within the watershed (Fuller, Johnson, and Bear,1984), (King, 1993), (USFS and USBLM, 1997), (Jim Brown Creek Resource Mgt. Cooperative, 1997).

The second problem is cattle within the drainage. Cattle are a major contributor to destruction of riparian areas and trampling of stream banks (Kauffman, Krueger, and Vavre, 1983), (Platts, 1991). The riparian zone is impacted increasing sediment delivery to streams and destruction of vegetation cover, which contributes to elevated water

temperatures (EPA, 1993). This destruction has caused loss of rearing habitat and cover and produced unstable stream banks (EPA, 1993). The third problem is heavy snow loads in the drainage. These snow loads, along with animal interaction, degrade and destroy areas of fence which have already been constructed. Degraded fence allows cattle to enter riparian area and streams, in return destroying fish and wildlife habitat (EPA,1993).

All of the four objectives our project proposes strive towards meeting all of the goals and objectives found in the Wy-Kan-Ush-Mi Wa-Kish-Wit (CRITFC, 1995), as stated below with explanations of how our projects fit into each of them:

ANADROMOUS FISH RESTORATION PLAN OF THE TRIBES
GOALS

- Restore anadromous fishes to the rivers and streams that support the historical culture and economic practices of the tribes.
- Emphasize strategies that rely on natural production and healthy river systems to achieve this goal.
- Protect tribal sovereignty and treaty rights.
- Reclaim the anadromous fish resources and the environment on which it depends for future generations.

Putting fish back into river and stream systems alone is not enough to restore their populations, they need a healthy system to return, spawn, and rear in. Our proposal objectives will mitigate (in place, in kind) the problems stated above by decreasing sediment into rivers and streams (restoring and increasing spawning areas), produce riparian and stream bank vegetation (decreasing stream temperatures, increasing rearing habitat, producing cover for fish and wildlife, and stabilizing stream banks), and keep cattle out of critical riparian and stream areas (allowing the stream and riparian areas to grow and heal with time).

The project proposal also protects the goal of tribal sovereignty and treaty rights. In the Treaty of 1855, the Nez Perce Tribe ceded the majority of their aboriginal territory to the United States in exchange for a reservation that was to serve as a permanent homeland. In that treaty, the Nez Perce Tribe reserved certain rights including, "the exclusive right of taking fish in all the streams where running through or bordering said reservations is further secured to said Indians (Nez Perce Treaty of 1885, 1855)." According to this, the federal government's has a trust agreement to protect all tribal resources. The proposal will work toward protecting our resources, therefore fulfilling the government's responsibilities. The project will also allow the tribe to manage our own tribal resources, which will in turn protect our sovereignty and treaty rights. This is called for in the *National Indian Forest Resource Management Act (PL 101-630)*, which provides for the management of forested tribal trust lands (USDA, 1997).

ANADROMOUS FISH RESTORATION PLAN OF THE TRIBES
OBJECTIVES

- Within 7 years, halt the declining trends in salmon, sturgeon, and lamprey populations originating upstream of Bonneville Dam.

- Within 25 years, increase the total adult salmon returns of stocking originating above Bonneville Dam to 4 million annually and in a manner that sustains natural production to support tribal commercial as well as ceremonial and subsistence harvests.
- Within 25 years, increase sturgeon and lamprey populations to naturally sustainable levels that also support tribal harvest abundance in perpetuity.

The first objective states halting declining salmon and lamprey trends within 7 years. Revegetation of the riparian and stream bank areas should produce bank stabilization within 2 years and cover between 4 to 5 years of planting. This is within the 7 years objective of the Tribes plan. The results of decreased sedimentation to water quality and the benefits towards fish habitat will be stated in a report following the 1998 road obliteration season, which is explained in this section, part (b), under objective 1.

In the 1997 season, the Nez Perce Tribal Fisheries/Watershed Program, in conjunction with the Clearwater National Forest and Earth Conservation Corps, (Nez Perce Salmon Corps.), obliterated a total of 10.1 miles of excess road and constructed a total of 3.0 miles of Mussellshell Meadows Protection fence line within the Lolo Creek Watershed. Rudy Carter (technician III) served as a crew leader for road obliteration. Emmit E. Taylor Jr. (civil engr., EIT) began training to become a field road obliteration inspector for the 1998 season and two additional employees (to be announced) may also be trained. Ira Jones (program coordinator) has coordinated all activities within the Lolo Creek Watershed for the 1997 season and will co-coordinate the 1998 season with Janet Hohle of the Idaho Soil Conservation Commission for the *Nez Perce Tribal/Watershed Program*.

b. Proposal objectives.

OBJECTIVE 1: Alleviate Sediment Input from Road Sources within the Lolo Creek Watershed.

Product: A total of 10 miles of excess logging roads will be obliterated, returning the hillside as closely as possible to its original hydrologic state and removing the high risk of blow-outs and concentrated surface water flow. A monitoring and evaluation report will be produced including but not limited to; history of road obliteration in the Lolo Creek Watershed; future obliteration and; analysis of sediment loads, cobble embeddedness, and overall water quality in streams versus the amount of road obliterated over time. This report will evaluate and analyze an overall measure of success. It will also determine what data collection is available by all involved agencies and what is needed for the future for a complete monitoring system.

OBJECTIVE 2: Create Non-Source Watering Systems in the Mussellshell Uplands of the Lolo Creek Watershed.

Product: Two non-source watering systems in the Mussellshell Uplands to reduce pressure from cattle on critical riparian stream cover and banks.

OBJECTIVE 3: Stabilize Stream Banks, Produce Fish and Wildlife Cover, and Improve Water Temperatures within the Mussellshell and Browns Creek Area of the Lolo Creek Watershed.

Product: Fence line protecting crucial riparian and stream area. Identified area of streams where meander blow-outs may occur stabilized. Revegetation of stream riparian and bank areas to stabilize banks, produce cover for fish and wildlife, and improve stream temperatures to between 50-57^{o}F (NMFS, 1997), (CRITFC, 1995).

OBJECTIVE 4: Operation and Maintenance (O&M) of the Lolo Creek Watershed Protection fence lines.

Product: A strong, upheld fence line that will keep cattle out of important fish and wildlife habitat, allowing the stream and environment to heal properly with time.

c. Rationale and significance to Regional Programs.

Protecting and restoring the Lolo Creek Watershed is called for in the objectives and goals of the Anadromous Fish Restoration Plan of the Nez Perce, Umatilla, Warm Springs, and Yakama Tribes (Volume I) as stated above in Section 7, Part (a) of this proposal. All four of the project objectives propose to serve an overall watershed plan to restore and protect the Lolo Creek Watershed, therefore, increasing anadromous and resident fish and wildlife habitat, assisting in enlarging their populations, and in turn, protecting Nez Perce Tribal treaty rights and culture.

Several agreements, verbal and written, have been made between various agencies and individuals to work together with the *Nez Perce Tribal Fisheries/Watershed Program* in performing the four objectives proposed for the Lolo Creek Watershed in 1998, which is stated next. A Challenge Cost-Share Agreement between the Clearwater National Forest and the Nez Perce Tribe has been used for all the work that has been done in 1997 (CNF and NPT, 1997), and is in the process of being extended through the year 2003 (5-year plan). A verbal agreement has already been made between the two parties concerning this matter, with a memorandum of agreement (MOA) to be established in February of 1998. This agreement discusses the relationship between the two governments with regard to watershed management within the Lolo Creek Watershed, as well as the entire Clearwater National Forest. Verbal agreements have also been made with Potlatch Corporation, Earth Conservation Corps., Idaho Department of Lands, and two land permittees for help in completing the proposed objectives for 1998.

Using the challenge cost-share agreement between the two parties, during the 1997 year, 10.1 miles of road within the Lolo Creek Watershed was obliterated. According to the agreement, the Clearwater National Forest is to analyze and identify priority roads to be obliterated. In the same agreement, the tribe will provide funding to cover the onsite contract administration and inspection, contractor and their equipment costs, and purchase of erosion control supplies (CNF and NPT, 1997). In the 1997 season, the Nez Perce Tribal Watershed Program provided a 6 member field crew. It is planned for the 6 member field crew to continue in the future and for the Forest Service to train Emmit E. Taylor Jr. (Civil Eng., EIT) and 2 other employees of the *Nez Perce*

Tribal Fisheries/ Watershed Program as road obliteration field inspectors in the 1998 season. A report is also to be completed by Emmit E. Taylor in conjunction with the Clearwater National Forest analyzing how road obliteration has impacted stream and water quality over time in the Lolo Creek Watershed. A verbal agreement has been made between both parties concerning this issue.

Cattle grazing has had a great effect on fish habitat within the Lolo Creek Watershed, (CRITFIC, 1995). Because of grazing, much of the riparian cover has been destroyed, and continued grazing on riparian areas will not decrease the problem. Our proposal includes creating off-stream watering sites for the cattle in the area to help decrease the pressure on riparian vegetation and stream bank stability. Historically, cattle move off ridge tops moving to the bottom lands for a water source. The development of the non-source watering systems on the Mussellshell Uplands will hold cattle longer in these areas. We have also identified areas along the tributaries and mainstream of Lolo Creek which can be fenced and revegetated to help create a healthy riparian corridor. By decreasing the amount of grazing traffic along Lolo Creek and its tributaries, the *Nez Perce Tribal Fisheries/Watershed Program* will help increase areas of healthy and productive fish habitat. The work for this proposal will be done using the challenge cost share agreement with the Clearwater National Forest.

This proposed project will directly help fisheries projects already funded by BPA. BPA has allotted $1,500,000 to the Nez Perce Fisheries Program for the 1998 year to be used towards the Nez Perce Tribal Hatchery (NPTH). The NPTH will incubate and early rear fish in their facility and then release them into the natural environment to continue their freshwater rearing in Eldorado and Lolo Creeks, which are within the Lolo Creek Watershed. Lolo and Eldorado Creeks are important spring chinook production "treatment" streams for NPTH. In order for the production program to achieve success, habitat conditions in the stream need to be as beneficial as possible. The objectives of this proposal will work to benefit fish and wildlife habitat for the Nez Perce Tribal Hatchery projects.

This project will work towards 7.6D Habitat Objective of the *NPPC Fish and Wildlife Program* (NPPC, 1994) to limit the percent of fine sediment in salmon and steelhead redds to no more than 20 percent and limit cobble embeddedness to less than 30 percent or documented historic condition. This objective will also work towards the overall goals and objectives of the Anadromous Fish Restoration Plan of the Tribes (CRITFC, 1995) in returning salmon back to the rivers and streams above Bonneville Dam and restoring healthy river systems.

d. Project history

The *Nez Perce Tribal Fisheries/Watershed Program* has been involved in road obliteration within the Lolo Creek Watershed since 1997, under BPA contract number 96-077-00. A Challenge Cost-Share Agreement between the Clearwater National Forest and the Nez Perce Tribe (CNF and NPT, 1997) was produced, signed by both parties, and used during the 1997 year to obliterate and revegetate 10.1 miles of road within the Lolo Creek Watershed. A grand total of 41 miles have been identified for obliteration and vegetation, with 30.9 miles remaining. Our cost associated with road obliteration for the 1997 season totaled $31,700.

During fiscal year 1997, the watershed program has also constructed approximately 3.0 miles of riparian protection fencing within the Lolo Creek Watershed, under BPA contract number 97-077-00. This project began in 1997, and $71,478.00 of Fish and Wildlife Program funds were spent to accomplish the fencing. Also, during this time we have explored further opportunities within the watershed for cost share agreements with U.S. Forest Service, private land owners, State of Idaho organizations and grazing permittees. That exploration has developed the opportunities included in this proposal.

e. Methods.

METHODOLOGY - OBECTIVE 1

Objective 1 and the related tasks, as stated in Section 4 of this proposal, will be achieved by obliterating excess roads constructed for timber harvest in the Lolo Creek Watershed, and will be done in corperation with the Clearwater National Forest. The primary objective for road obliteration in the Lolo Creek Watershed is to reduce watershed degradation by reclaiming roads that are no longer a necessary part of the forest's transportation System. The scope and general methods are given below:

SCOPE:

- Obliterate and revegetate 10.0 miles of excess logging roads within the Lolo Creek Watershed.

METHODS:

- Removing culverts and other drainage structure that requires maintainence.
- Opening up stream channels by laying back side slopes as much as feasible.
- Flattening fill slopes or pulling up fill materials where failures exist or are impending or where poorly vegetated.
- Flattening or pulling down cut slopes where they are too steep or poorly vegetated.
- Outsloping the road surface and/or constructing waterbars across to avoid concentrating runoff.
- Laying selected portions of the road back to its original contours where the road is poorly vegetated or unstable.
- Revegetating with native species.
- Monitor and evaluate obliterated roads for soil stabilization, blow-outs, and vegetation regrowth.
- Complete analysis report and distribute to all involved or interested parties.

A report will be produced studying and analyzing all data within the Lolo Creek Watershed concerning road obliteration including, but not limited to; history of road obliteration in the Lolo Creek Watershed; number, name, and location of roads obliterated; future obliteration; analysis of sediment loads, cobble embeddedness, and overall water quality in streams versus the amount of roads obliterated over time. This report will produce an overall measure of success. It will also determine what data

collection is available by all involved agencies and what is needed for the future for a complete monitoring system.

A requirement concerning the methodology of road obliteration involves revegetation. All plant shrub and tree species will be native to the surrounding area.

As required under the Challenge Cost-Agreement (CNF and NPT, 1997), the Clearwater National Forest analyzed the Lolo Subbasin and identified a total of 41 miles of road needed for obliteration. Up to date, 10.1 miles have been obliterated in 1997 by the Forest and the *Nez Perce Tribal Fisheries/Watershed Program*. With time constraints and money available between the two agencies on other projects, 10 miles of road have been planned for obliteration in the Lolo Creek Watershed for 1998.

Monitoring and evaluation of the obliterated roads will continue for 5 years after completion. The obliterated roads will be observed by either walking, driving, or helicopter and evaluated for blow-outs, soil stabilization, and vegetation regrowth. The water quality data collected on the streams of impacted concerning sedimentation will also be monitored and evaluated. Monitoring and evaluation results will be presented in a final report to be completed by Emmit E. Taylor Jr. (Civil Engr., EIT) of the *Nez Perce Tribal Fisheries/Watershed Program* at the end of the 1998 road obliteration season. A report will also be completed at of the end of every year in which monitoring and evaluation occurs.

METHODOLOGY - OBJECTIVES 2 AND 3

This project is going to be carried out with the assistance of multiple groups including; the Nez Perce Tribe, Clearwater National Forest, Idaho Department of Lands, grazing permittees and private land owners. The tasks within the stream bank stabilization include; the development and placement of off-stream watering troughs, riparian fencing, and riparian revegetation.

SCOPE:

- To fence 8 miles of riparian area.
- Create 2 stream watering areas.
- Revegetate 3 miles of riparian areas.

METHOD:

- Hire sub-contractor to construct 8 miles of fencing.
- Replant native riparian species within the fenced area.
- Identify locations for the off-stream watering sites.
- Create a healthy watering site by creating a filter zone around the area of the trough.
- Plant both shrub and tree species throughout the riparian corridor.

The methods with which the projects will be carried out are as follows. The riparian fencing will be done by the sub-contractor using wood posts every 10', as determined and agreed by the U.S. Forest Service and the tribe. Historically, metal posts have been driven into the ground by heavy snow loads making the fence non-functional, and for this reason, wood posts will be used instead of metal posts. The riparian revegetaion will be accomplished using native species of willow, hawthorne, alders and cottonwoods. The willow, hawthorne, alder species will be placed at 4 foot intervals in a staggered pattern, while the cottonwoods will be placed approximately 15-20 feet from the stream bank and 10 feet apart. This spacing will allow for a diverse stream buffer contributing to the health of the riparian corridor. With the creation of two upland (off-

stream) watering sites, we will reduce the amount of traffic on the stream banks and also reduce the grazing pressure placed on the riparian area. The upland watering sites will each consist of 200 gallon steel trough.

Within the revegetation phase of the project there are expected losses of seedlings and clipping due to browsing by domestic and wild animals in the area. These losses will be monitored throughout the field season and decisions will be made about any problems arising from these losses. We will evaluate the effectiveness of the revegetation by measuring the growth of the trees and shrubs during their growing season. The upland watering effectiveness will be monitored by the permittee, U.S. Forest Service, and the Nez Perce Tribe.

METHODOLOGY - OBJECTIVE 4

Objective 4 and the related tasks are stated in Section 4 of this proposal. The operation and maintenance of the existing Lolo Creek Watershed protection fence lines will be an on-going project every year. During the spring of every year, all protection fence lines will be observed and evaluated, by walking, all terrrain vehicle (ATV), or driving, for needed repairs. The necessary materials and equipment will be gathered, and a crew assembled and sent into the field to repair any areas of fence line, as determined in the observation and evaluation.

The results expected from the proposed project will be protecting and restoring the Lolo Creek Watershed, so it may return to its original state producing a healthy environment for fish and wildlife, assisting in enlarging their populations, and in turn protecting Nez Perce tribal treaties and culture using an overall watershed approach. The direct results over time for the watershed will include; decreasing sediment into streams and tributaries to increase fish spawning habitat; producing riparian and stream bank cover to decrease water temperatures and increasing fish and wildlife cover; identified areas of streams within Mussellshell Meadows stabilized from possible meander blow-outs; a maintained fence line; and construction of two non-source watering systems to keep cattle out of critical fish and wildlife environment. This effort will in turn result in protection of our Nez Perce tribal culture, sovereignty, and 1855 treaty rights.

f. Facilities and equipment.

ROAD OBLITERATION

- EQUIPMENT: Excavator and/or Bulldozer
  NUMBER: 1 of each.
  IS OWNED OR TO BE PURCHASED OR RENTED: Rented
  USE: The excavator and/or Bulldozer will be used to return excess roads constructed for timber harvest to their original contours, remove existing culverts and scarify the ground for revegetation.
- EQUIPMENT: Hoe-dads
  NUMBER: 6
  IS OWNED OR TO BE PURCHASED OR RENTED: Purchased
  USE: Hoe-daddies will be used for revegetation of trees.
- EQUIPMENT: Gloves
  NUMBER: 20 pairs

IS OWNED OR TO BE PURCHASED OR RENTED: Purchased
USE: Gloves will be used as necessary for protection of hands.

- EQUIPMENT: GSA Vehicles
  NUMBER: 3 (1-Ford Expedition, 1-Ford F-150, 1-Chevy 1-Ton, trucks)
  IS OWNED OR TO BE PURCHASED OR RENTED: Owned
  USE: The GSA Vehicles will be used to transport employees, equipment, materials, and ATV.
- EQUIPMENT: ATV
  NUMBER: 1
  IS OWNED OR TO BE PURCHASED OR RENTED: Owned
  USE: The ATV will be used to transport equipment and materials to the work site.
- EQUIPMENT: Office Computer
  NUMBER: 1
  IS OWNED OR TO BE PURCHASED OR RENTED: Owned
  USE: The computer will be used to analyze and write the report on the success of road obliteration over time.
- EQUIPMENT: Tree Planting Bar
  NUMBER: 4
  IS OWNED OR TO BE PURCHASED OR RENTED: Purchased
  USE: The bars will be used to plant all riparian vegetation.
- EQUIPMENT: Tree feeding auger
  NUMBER: 2
  IS OWNED OR TO BE PURCHASED OR RENTED: Purchased
  USE: These will be used to place trees that need to placed deeper than one foot.

g. References.

REFERENCES

CNF and NPT (Clearwater National Forest and Nez Perce Tribe). 1997. Challenge Cost-Share Agreement between the Clearwater National Forest and the Nez Perce Tribe. Lapwai, Idaho.

CRITFC (Columbia River Inter-Tribal Fish Commission). 1995. WY-KAN-USH-MI WA-KISH-WIT, Spirit of the Salmon, The Columbia River Anadromous Fish Restoration Plan of the Nez Perce, Umatilla, Warm Springs, and Yakama Tribes. Volume I. Portland, Oregon.

EPA (Environmental Protection Agency). 1993. Monitoring Protocols to Evaluate Water Quality Effects of Grazing Management on Western Rangeland Streams.

EPA (Environmental Protection Agency). 1997. Idaho TMDL development schedule: EPA review and evaluation.

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Section 8. Relationships to other projects

Several agreements (written and verbal) have been made between various agencies and individuals to work together with the *Nez Perce Tribal Watershed Management Program* in performing the four objectives proposed for the Lolo Creek Watershed in 1998. The staff and program manager, Ira Jones, constantly seek agreements and/or corporation between other agencies for work to be completed with the Clearwater Subbasin.

Currently, the Nez Perce Tribe is working under a Challenge Cost Share Agreement with the Clearwater National Forest. This agreement will be amended to continue through the year 2003 (5-year plan). This agreement discusses the relationship

between the two governments with regard to watershed management with the Lolo Creek Watershed and the Clearwater National Forest. Also, during this time we have explored further opportunities within the watershed for cost share agreements with U.S. Forest Service, private land owners, State of Idaho organizations, and grazing permittees. That exploration has lead to opportunities in this proposal.

According to the Nez Perce Treaty of 1855 with the Federal Government, the government has a trust agreement to protect all tribal resources. This proposal will work toward protecting our resources, therefore fulfilling the federal government trust responsibilities. This project will also allow the tribe to manage our own tribal resources, which will in turn protect our sovereignty and treaty rights.

This project will directly help fisheries projects already funded by BPA. BPA has allotted $1,500,000 to the Nez Perce Tribal Hatchery (NPTH). The NPTH will incubate and early rear fish in their facility and then release them into the natural environment to continue their freshwater rearing, two of which are Eldorado and Lolo Creeks. They are located within the Lolo Creek Watershed. Lolo and Eldorado Creeks are important spring chinook production "treatment" streams for NPTH. In order for their program to achieve success, habitat conditions in the stream need to offer as beneficial conditions as possible. The objectives of this proposal will work to benefit fish and wildlife habitat for the Nez Perce Tribal Hatchery projects.

The Clearwater Focus Watershed Program is co-coordinated by Ira Jones of the *Nez Perce Tribal Fisheries/Watershed Management Program* and Janet Hohle of the *Idaho Soil Conservation Commission*. They will work directly with this project by coordinating multiple jurisdictions, multiple agencies, and multiple private landowners of this projects area, in efforts to protect, restore, and enhance anadromous fisheries habitat within the Lolo Creek Watershed. The two co-coordinators are funded by BPA.

Section 9. Key personnel

NAME: Emmit E. Taylor Jr.
TITLE: Civil Engineer-In-Training
FTE: 1.0
DUTIES ON PROJECT: Road obliteration field inspector; Assist in analyzing, designing, and construction of bank stabilization structures. Co-coodinator for all Lolo Creek Watershed Projects.
QUALIFICATIONS: Emmit E. Taylor Jr. has a B.S. degree in Civil Engineering from Colorado State University. He has worked in several professional firms including, but not limited to, Colorado State University Transportation Program, Womer & Associates Engineering and Architecture Firm, and the Nez Perce Tribe.
DEGREE: Bachelors of Science in Civil Engineering - Colorado State University
CERTIFICATION STATUS: Civil Engineer-In-Training
CURRENT EMPLOYER: Nez Perce Tribal Fisheries/Watershed Management Program
CURRENT RESPONSIBILITIES: Assist in gathering, analyzing, and interpreting watershed data; represent program in various interdisciplinary teams; assist in surveying project areas; aid in assessing water resources/quality; knowledge of current computer software programs; design of civil engineering projects; supervise and field inspection of road obliteration; co-coordinate program projects.

PREVIOUS EMPLOYMENT:

1997 - Present: Nez Perce Tribal Fisheries/Watershed Program
1997 - 1995: Womer and Associates Engineering and Architecture Firm
1995 - 1993: Colorado State University Tribal Transportation Program

EXPERTISE: Emmit E. Taylor Jr.'s background is in Civil Engineering with an emphasis in hydrology. Mr. Taylor's analysis, design, and construction work concentrates on stream rehabilitation, stream morphology, water quality, road obliteration, in-stream structures, and fish passage improvements.

PUBLICATION OR JOB COMPLETIONS: (1) Eldorado Fall Area Survey, (2) McComas Meadows Meadow Protection Project, (3) Squaw Creek Stream Survey and Analysis, (4) Colville Confederated Tribes HRD Building Site Development Design, and (5) Geiger Boulevard Environmental Analysis.

NAME: Felix M. McGowan
TITLE: Habitat Biologist
FTE/HOURS: 1.0

DUTIES OF PROJECT: Co-coordinator for all projects, riparian revegatation supervisor, fence placement corrdinator and liaison between Forest Service and Tribal work crews.

QUALIFICATIONS: Felix M. McGowan has a degree in Biology from Gonzaga University. He has worked for the Nez Perce Tribe for one year. Prior to coming to this job he worked in a college setting at North Idaho College.

DEGREE: Bachelors of Arts in Biology, Gonzaga University

CURRENT RESPONSIBILITIES: Determine budget and staffing needs, prepare project work plans and coordination of projects, work with interdisciplinary teams, help to develop land management plans, coordinate fish, wildlife and cultural habitat requirements, investigate potential projects, and help inventory and evaluate habitat conditions.

PREVIOUS EMPLOYMENT:

1997 - Present: Nez Perce Tribe
1997 - 1994: North Idaho College
1994 - 1988: McGowan Farms

EXPERTISE: Felix has a good base in the natural sciences. His work focuses on protection and restoration of riparian and cultural sites. These two areas require a knowledge of a variety of habitat types and how the different habitats interrelate with one another.

PUBLICATIONS OR JOBS COMPLETED: 1)Squaw Creek Road Obliteration, 2) Squaw Creek Stream Survey, 3)McComas Meadows Fencing Project, 4) Musselshell Meadows Fencing Project, 5)Johnson Creek/Cox Ranch Rehabilitation Review.

Ira Jones, Clearwater Subbasin Focus Coordinator (1 FTE)
Habitat/Watershed Manager, Nez Perce Tribe

Education

INSTITUTION	LOCATION	ATTENDANCE	MAJOR	DEGREES
University of	Missoula, MT	Sept. 73 - June 74	Wildlife	N/A

Montana				

Certificates N/A

Professional Organizations N/A

Employment History

March 3, 1997 to present, Clearwater Subbasin Focus Program Coordinator for the Nez Perce Tribe, Lapwai, Idaho. Duties: Analyze programs, laws, policies related to watershed management. Facilitate development of criteria to identify critical fisheries habitat. Develop system to apply criteria to watershed for project development and administration. Prepare plan documents for watershed habitat work coordination. Give educational presentations and workshops for watershed management and proposal development. Provide assistance to project proponents with proposal development, implementation, monitoring, and assessment.

May of 1996 to present, Habitat/Watershed Manager of the Nez Perce Tribe. Responsible for planning and implementation of the Early Action Watershed Projects for the Nez Perce Tribe.

6/25/1986 - 3/1/97, Tribal Government Program Manager, United States Forest Service, Region One.

12/14/80 - 6/25/86, Facilities Manager, United States Forest Service, Region One.

7/74 - 10/79, Fire Cache Work Leader, USDA Forest Service, Region One.

Relevant Job Completions: 1) Coordinated National, Multi-Regional, and Regional Civil Rights conferences. 2) Facilitated Treaty Rights workshops with host tribes and multi-government agencies. 3) Organized and conducted Tribal Relations Training primarily for management level from the U.S. Forest Service, Tribes, Bureau of Land Management, and the Bureau of Indian Affairs. 4) Introduced, implemented, and managed the Inter-Tribal Youth Practicums for careers in natural resources and leadership within the U.S. Forest Service Regions 1, 5, 9, and 10. 5) Developed an Intergovernmental Personnel Act (IPA) position to work with the Salish Kootnai college to teach environmental science courses and develop a four-year natural science curriculum at the college. This three-year position and the program developed into a four-year accredited degree program in the fall of 1996.

Section 10. Information/technology transfer

The Forest Service has a required obligation to provide research, transfer of technology, and technical assistance to Indian tribal governments (USDA, 1997). This obligation by the Forest Service will be used by the *Nez Perce Tribal Fisheries/Watershed Program* to aide in accomplishing the goals and objectives of our Program, NPPC Fish and Wildlife Program, and Spirit of the Salmon Anadromous Fish Restoration Plan of the Tribes. A relationship with the Clearwater National Forest has been established and has had a very positive impact on both organizations and is expected to continue in the future. This relationship has leaded to several agreements, both verbal and written, for the completion of numerous projects within the Clearwater Subbasin.

A verbal agreement (to be included in a memorandum of understanding at a later date) has been made with the Clearwater National Forest to assist Emmit E. Taylor Jr. (Civil Engr., EIT) in obtaining his professional engineering license. The Forest Service engineers will oversee Mr. Taylor's designs and the implementation of these designs. During the next 3 years he will seek qualifications to take the State of Idaho Professional Engineer License Exam.

A report will be produced studying and analyzing all data within the Lolo Creek Watershed concerning road obliteration, and will include, but not be limited to; history of road obliteration in the Lolo Creek Watershed; number, name, and location of road obliterated; future obliteration; analysis of sediment loads, cobble embeddedness, and overall water quality in streams versus percent of road obliterated over time This report will produce the overall measure of road obliteration success and determine what is needed in the future for a complete monitoring system. This report will be completed in coordination with the Clearwater National Forest and distributed to all parties involved or interested.

Quarterly reports will be assembled stating, but not limited to, project status, time lines, dollars spent, and problems that need to be addressed during the coming quarter. The end of the year report will compile all data from the quarterly reports determining accomplishments achieved during the previous work season and what information, both negative and positive, can be applied to the upcoming season. These reports will be distributed to all parties involved and interested.